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## Patent Abstracts of Japan

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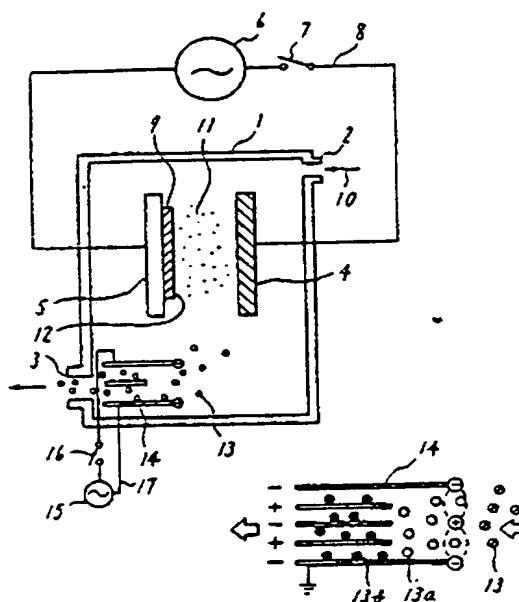
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APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : HIRATA KENJI;

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TITLE : THIN FILM FORMING DEVICE



ABSTRACT : PURPOSE: To prevent the deterioration in the quality of a thin film by collecting fine particles which are not deposited on a substrate when a thin film is formed on the substrate and which are converted into dust and suspended in a vacuum vessel by an electrostatic dust collector.

CONSTITUTION: A sputtering gas 10 is converted into plasma 11 in a vacuum vessel 1 by an ordinary method, a target 4 is sputtered and a neutral atom and a molecule 12 are emitted and deposited on a substrate 9 to form a thin film. An electrostatic dust collector 14 for collecting fine particles 13 which are not deposited at that time and suspended is provided in the vicinity of an outlet 3. The electrostatic dust collector 14 is provided with plural electrodes each having different polarity. When a switch 16 is turned on and the collector 14 is operated by an electric power source device 15, a prescribed electric field is produced between the electrodes of the collector 14 each having prescribed polarity. Consequently, the fine particles 13 are charged to form charged particles 13a which are attracted by the collector 14 to form collected particles 13b and a thin film having a uniform quality is formed on the substrate 9.

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